

AMENDED CLAIM SET:

1. (Cancelled).

2. (Currently Amended) A method of manufacturing a porous starch-based pigment or filler product comprising a stable foam, said method comprising:

a) dissolving air, or other gases into a water gel of a hydroxyalkylated starch or an ester thereof, said starch or starch ester having a degree of substitution ranging from 2-3, after which raising of the temperature generates a gas or liquid phase separation, and the product is crosslinked to achieve said stable foam,

b) mixing air into the starch gel to foam the gel and the foamed gel is cooled rapidly to produce said stable foam;

c) forming a micro bubble emulsion of the aqueous solutions of the starches and the organic solvents under thorough mixing and in the presence of surface-active agents and crosslinking reagents, and

d) contacting a solid starch derivative with high-pressure carbon dioxide in conditions where the high-pressure carbon dioxide penetrates into the starch derivative, which swells because of the effect of the carbon dioxide, after which the pressure on the starch derivative, which was swelled in the carbon dioxide, is lowered rapidly thereby producing a porous material following decompression;

wherein said stable foam contains foam bubbles and the average size of said bubbles is less than approximately 10 micrometres.

3. (Previously Presented) The method according to Claim 2, wherein in step c), the starch derivative is dissolved in water to make a solution, the percentage of which is approximately 1-30 % by weight.

4. (Previously Presented) The method according to Claim 3, wherein in order to increase the stability, 0.01-10% by weight of a crosslinking agent is added into the starch-bearing solution.

5. (Previously Presented) The method according to Claim 2, wherein in step d), a solid starch ester or starch ether, with a degree of substitution in the range of 0.5-3.0 mol/mol is contacted with a material which comprises mainly carbon dioxide at an elevated pressure and temperature, after which the pressure of the material contacting a cellulose ester or cellulose ether and which comprises mainly carbon dioxide is reduced rapidly so that a microporous starch ester or starch ether is achieved after the reduction of the pressure.

6. (Previously Presented) The method according to Claim 5, wherein a starch ester or a starch ether is contacted with a material which comprises mainly carbon dioxide at a pressure of 100-310 bar and at a temperature of 50-100 °C.

7. (Previously Presented) The method according to Claim 5, wherein a starch ester or a starch ether is contacted with carbon dioxide to which a small molecular alcohol or ester has been added.

8. (Previously Presented) The method according to claim 5, wherein the carbon dioxide comprises 1-15% by weight of a small molecular alcohol or ester.

9. (Previously Presented) The method according to claim 5, wherein the pressure on the material contacting the starch ester or the starch ether and which comprises mainly carbon dioxide is reduced to an essentially lower pressure within 0.08-7 seconds.

10. (Previously Presented) The method according to claim 5, wherein a starch-based material comprises a starch ether or starch ester.

11. (Currently Amendment) The method according to Claim 10, wherein in order to modify the properties of the starch gel [[gels]] or starch foam [[foams]], an initial material is used which comprises hydroxyalkyl starch or starch alkenyl succinate.

12. (Cancelled).

13. (Previously Presented) The method according to Claim 3, wherein the percentage of the starch derivative is 10-15% by weight.

14. (Previously Presented) The method according to Claim 4, wherein approximately 0.1-5% by weight of a crosslinking agent is added to the starch-bearing solution.

15. (Previously Presented) The method according to Claim 4 or 14, wherein glyoxal is the crosslinking agent.

16. (Previously Presented) The method according to claim 10, wherein the starch-based material comprises hydroxyalkyl starch.

17. (Previously Presented) The method according to claim 10, wherein the starch-based material comprises starch alkenyl succinate.